

### Stripline Total Thickness .0181 inches

Solder Mask .0010 inches		18
Copper .0007 inches	Ground	16
Polyimide .0070 inches		12
Copper .0007 inches	Signal	10
Polyimide .0070 inches		14
Copper .0007 inches	Ground	20
Solder Mask .0010 inches		22

FIG  
1A

### Microstrip Total Thickness .0064 inches

Solder Mask .0010 inches		36
Copper .0007 inches	Signal	32
Polyimide .0030 inches		30
Copper .0007 inches	Ground	34
Solder Mask .0010 inches		38

FIG  
1B

### Microstrip vs. Stripline Construction

Microstrip Total Thickness .0054 inches

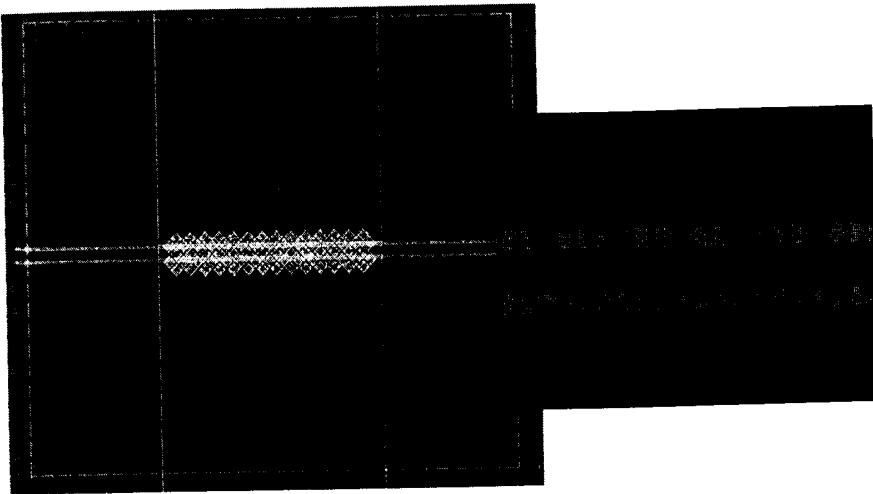
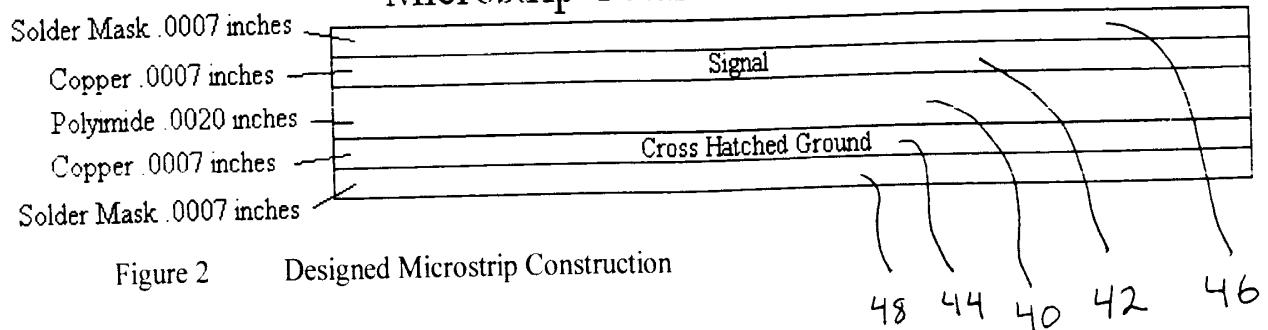


Figure 3      Simulation Set Up for 50 ohm Transmission Line

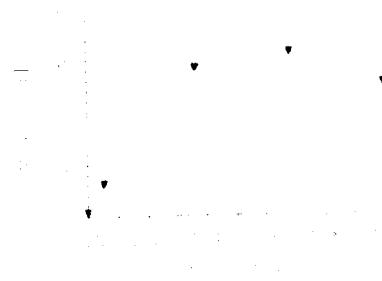


Figure 4      Simulation Results for 50 ohm Transmission Line – Amount of Reflection  
with a transmission line terminated with 50 ohms

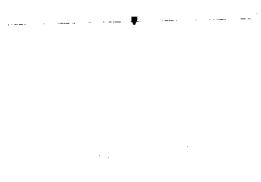


Figure 5      Simulation Results for 50 ohm Transmission Line – Amount of Reflection  
with a transmission line terminated with 50 ohms

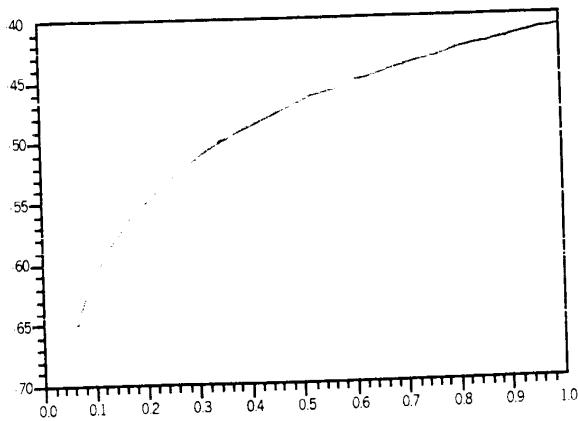


Figure 6      Simulation results for 50 ohm transmission line – Isolation between adjacent traces



Figure 7      75 ohm transmission line simulation set up

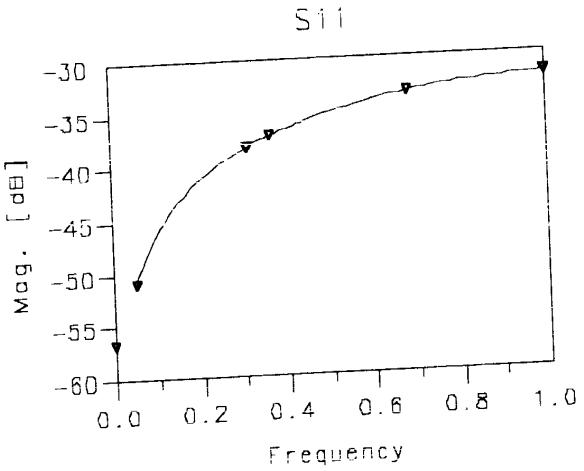


Figure 8      Simulation Results for 75 ohm Transmission Line – Amount of Reflection  
with a transmission line terminated with 75 ohms

Figure 9      Simulation Results for 75 ohm Transmission Line – Amount of Reflection  
with a transmission line terminated with 75 ohms plotted on a Smith Chart

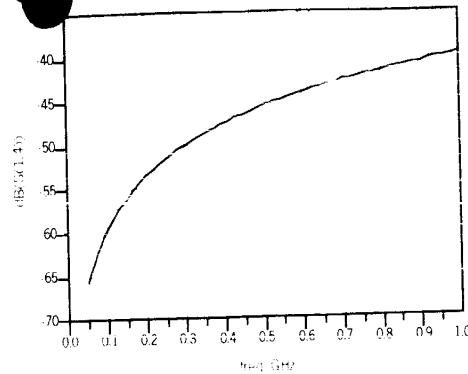


Figure 10     Simulation results for 75 ohm transmission line – Isolation between adjacent traces  
The crosshatched utilized in these designs is shown in figure 11 below.

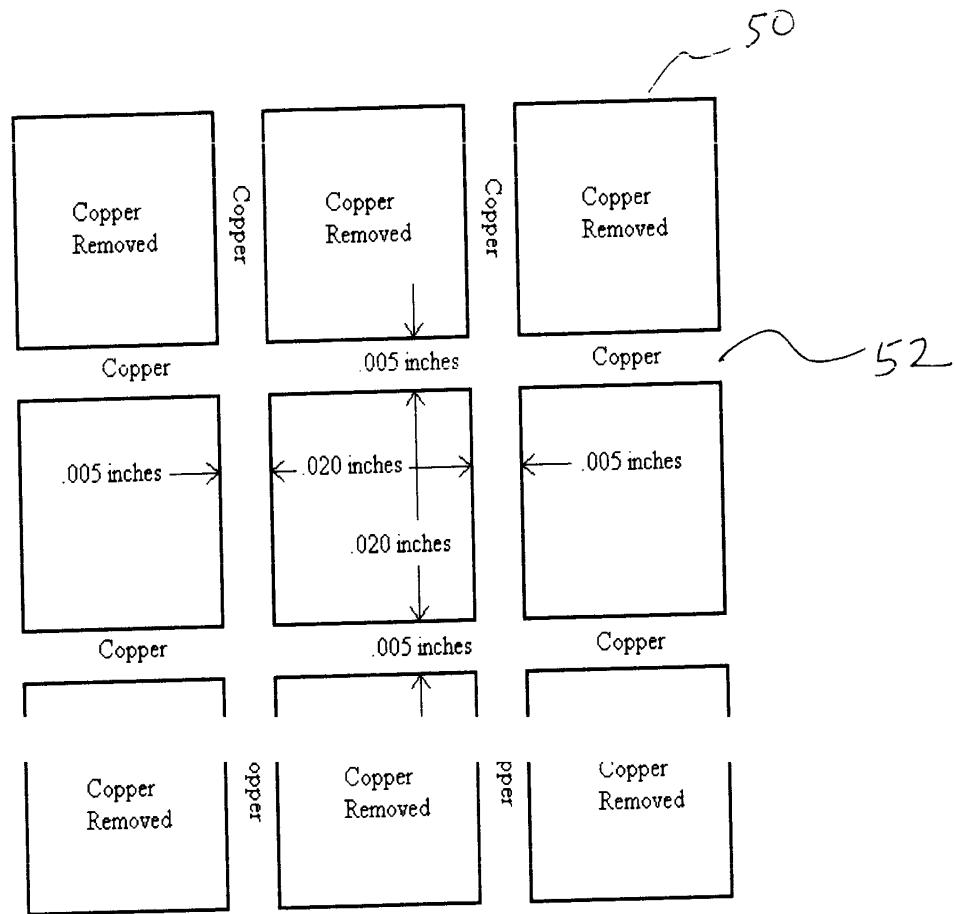


Figure 11     Cross Hatch utilized on Ground Plane

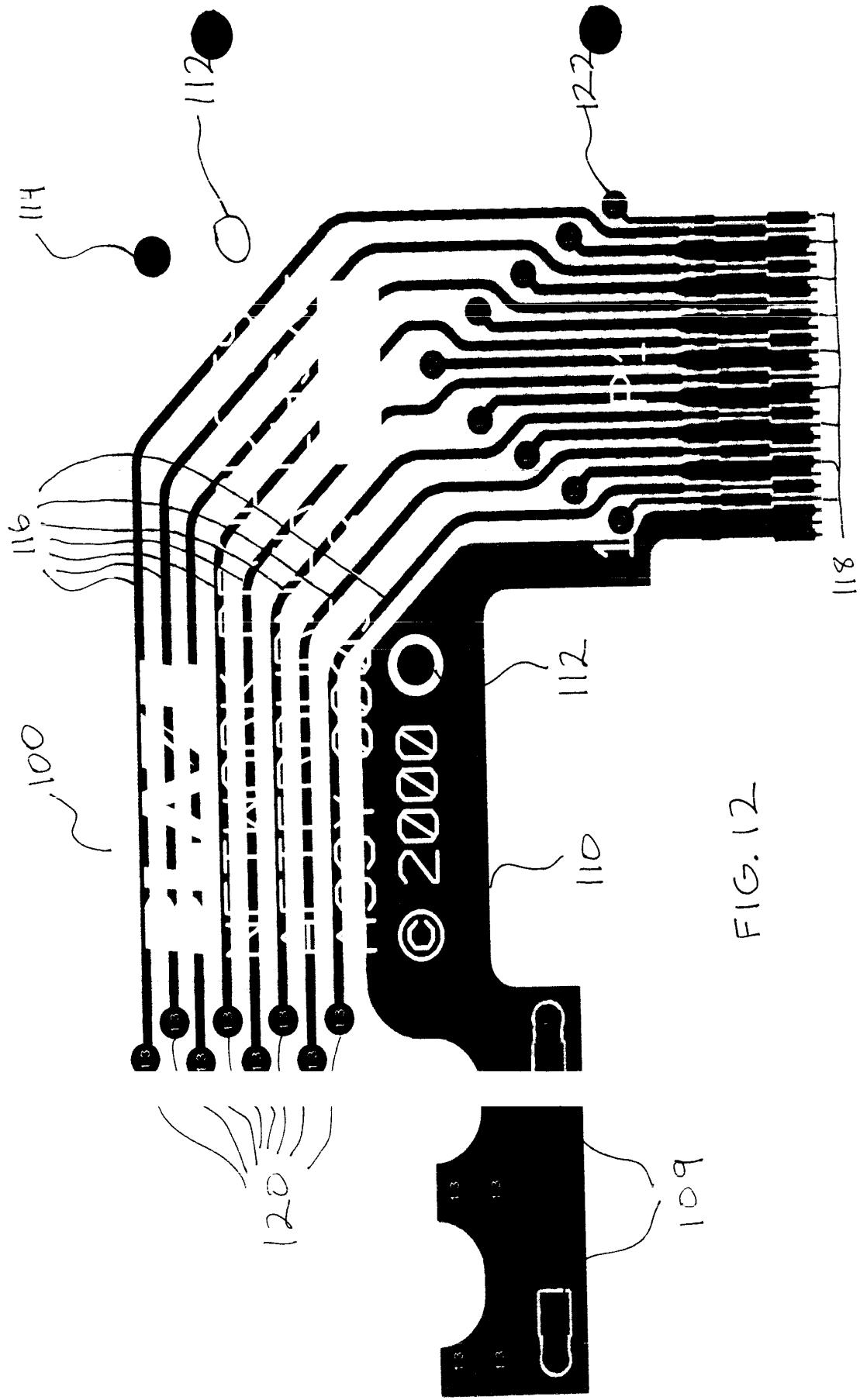


FIG. 12

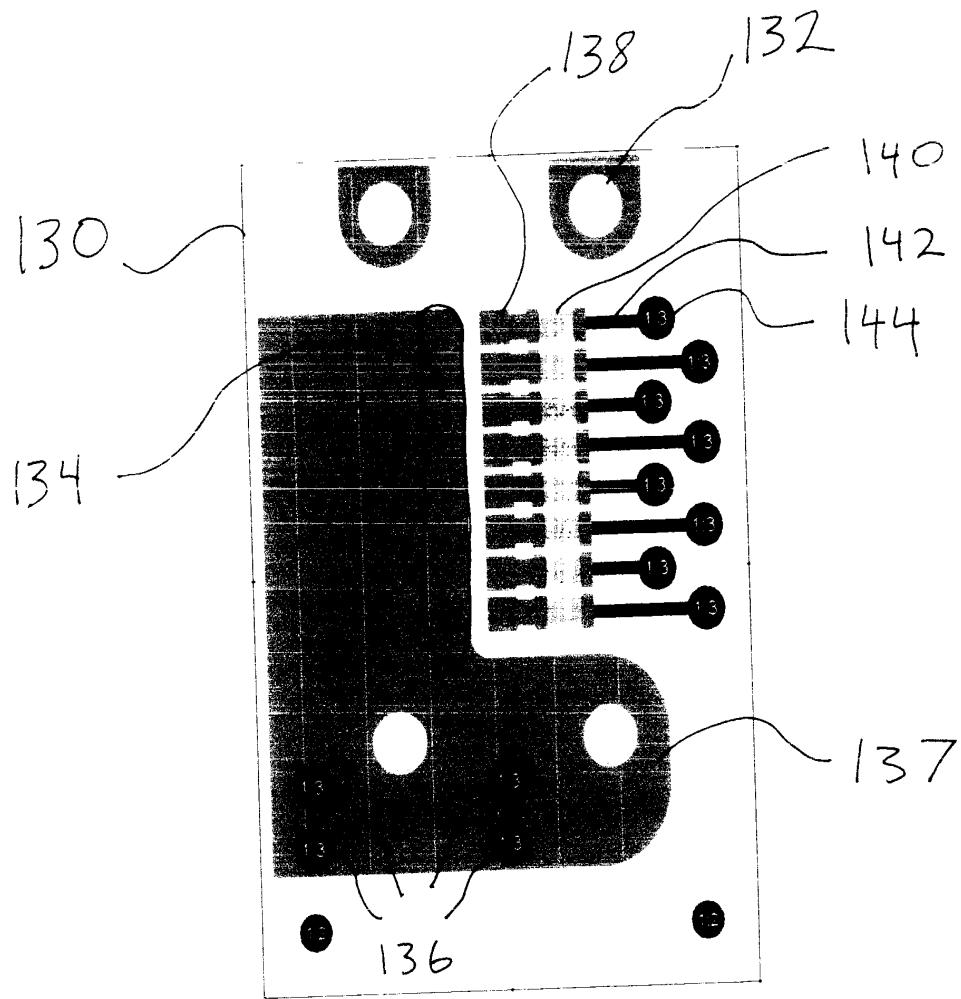
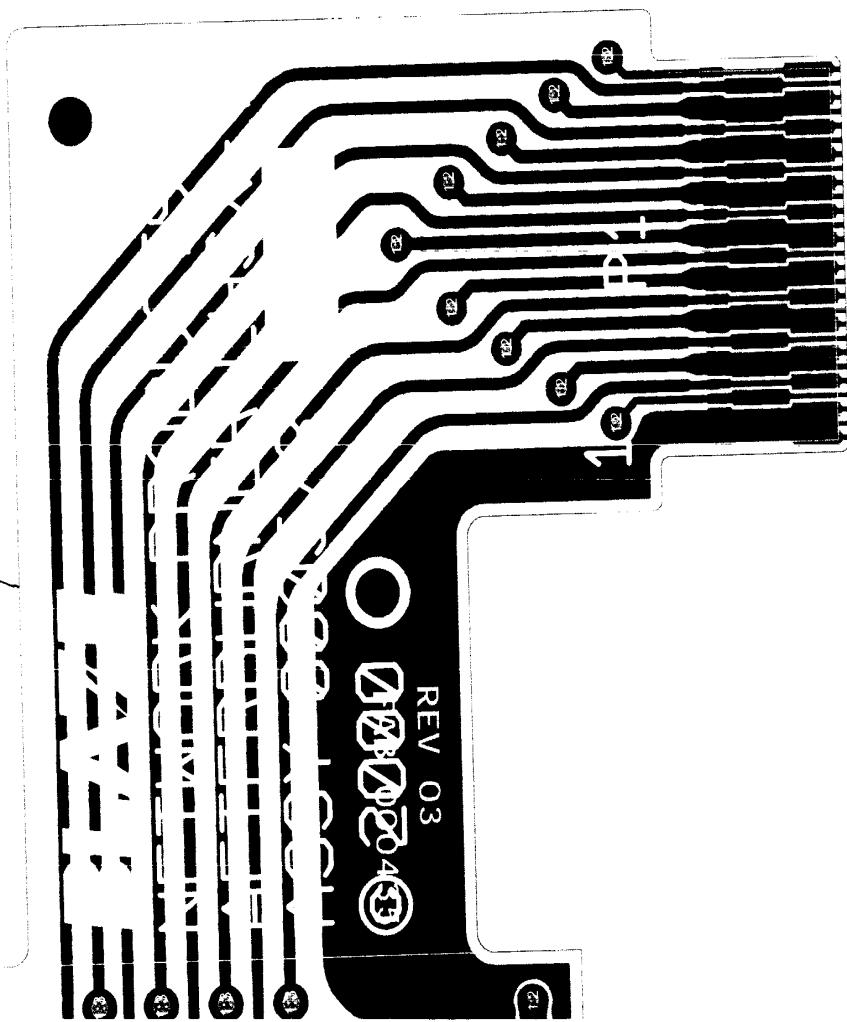
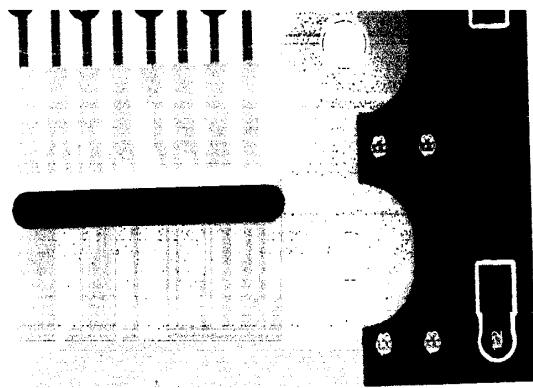


FIG 13

F16. 14A



13



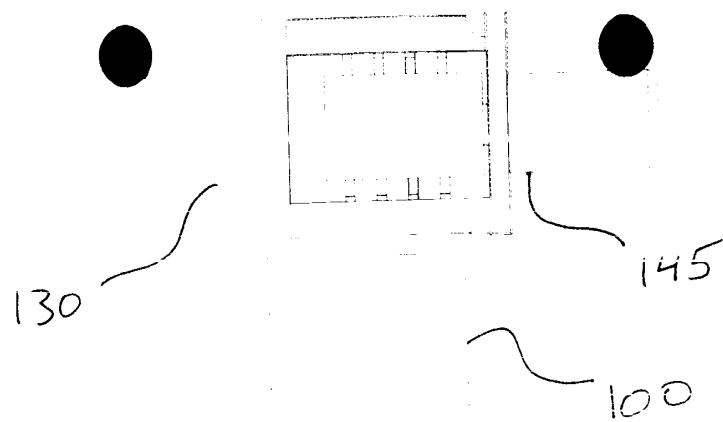


FIG. 14B

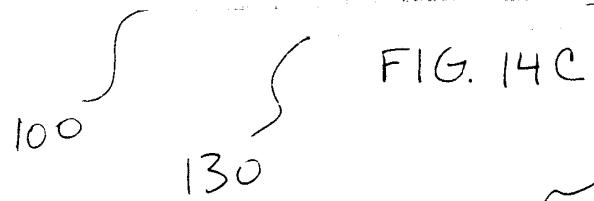
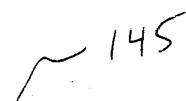


FIG. 14C



~ 100

130

FIG. 14D

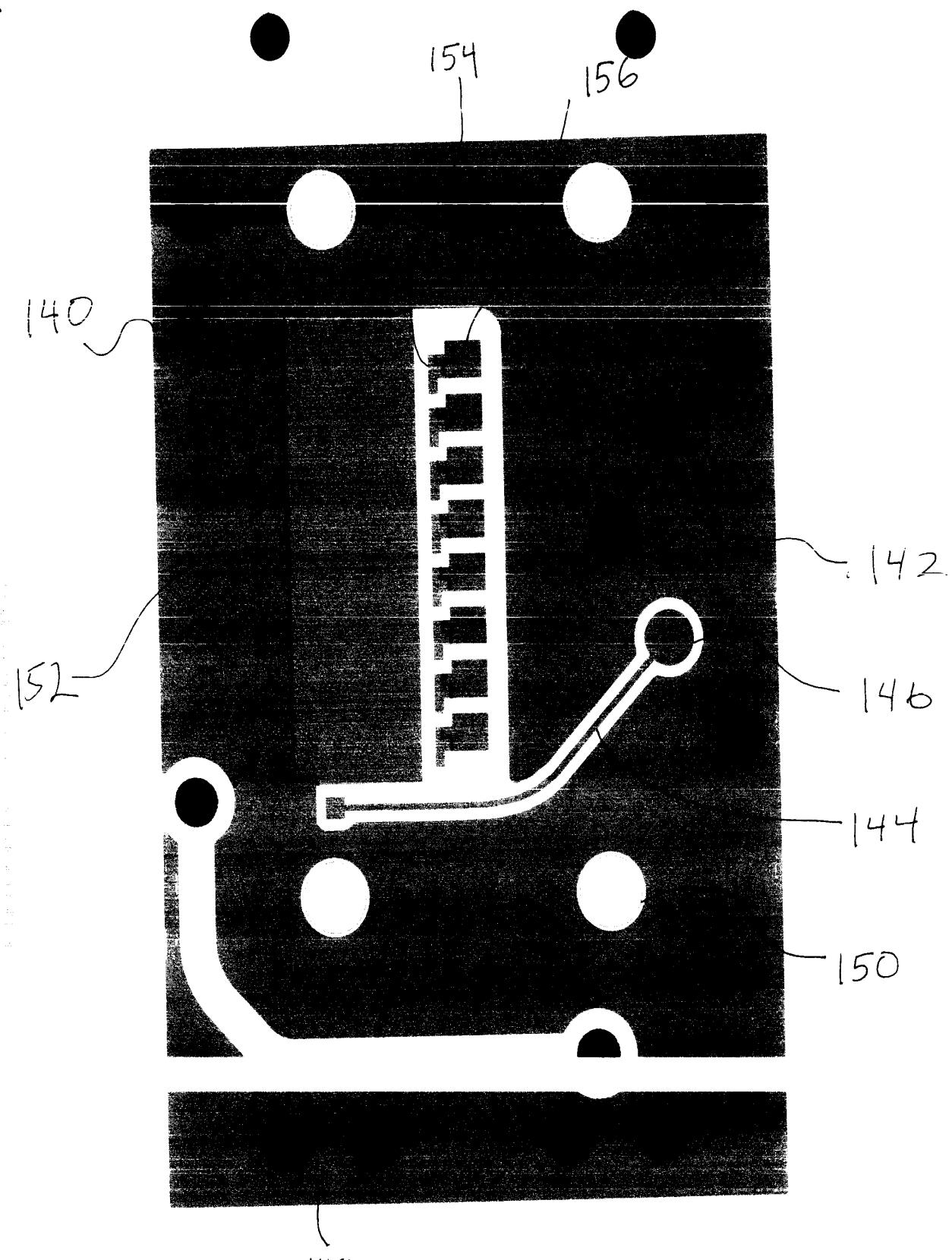


FIG. 15

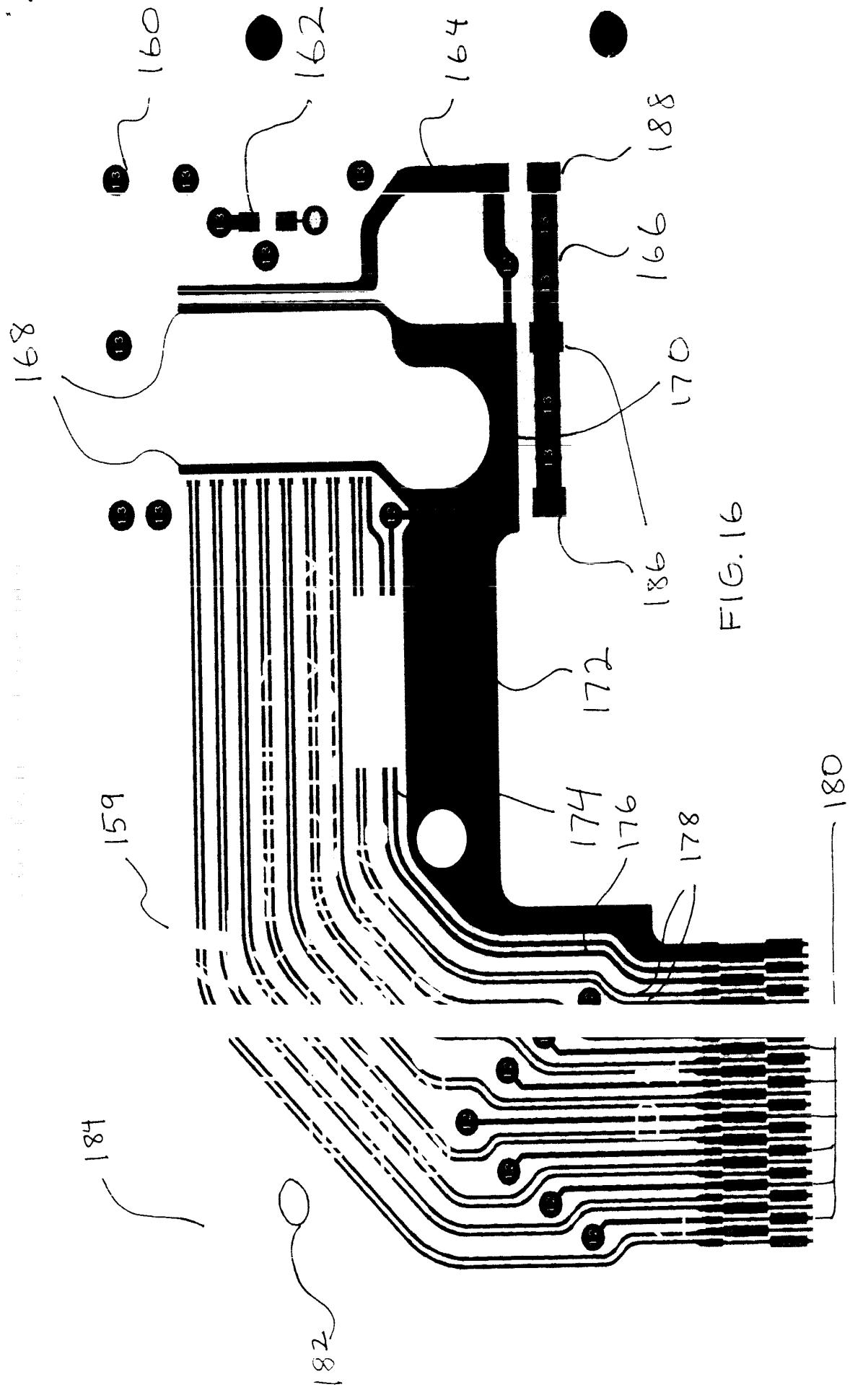


FIG. 16

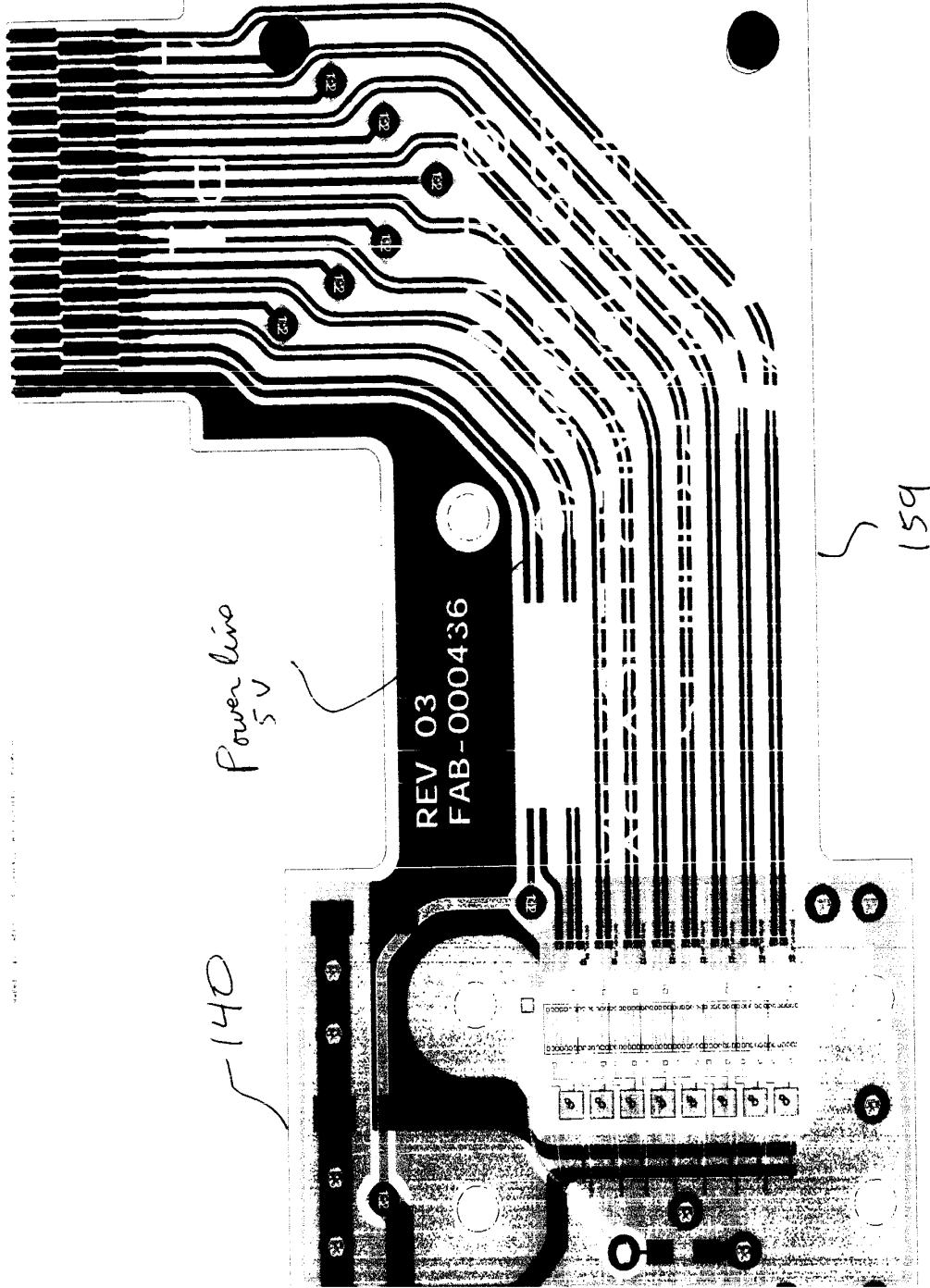


FIG. 17A

159

140

Power line

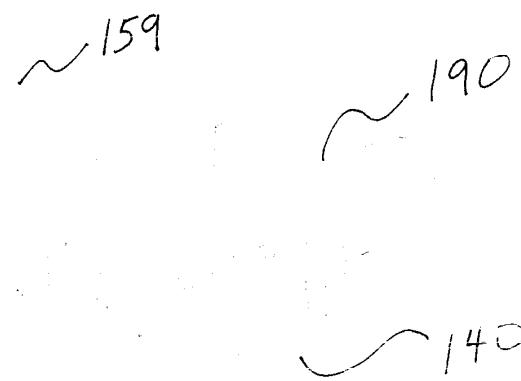
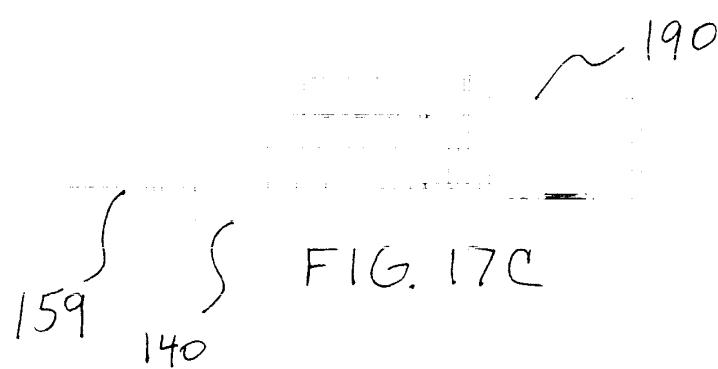
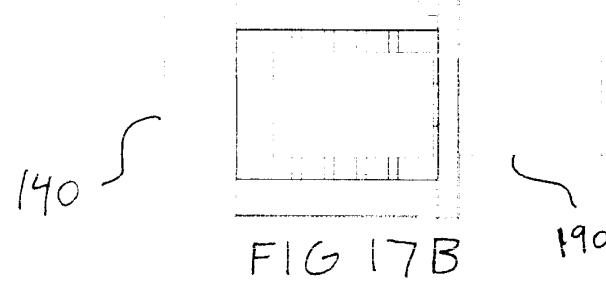


FIG. 17D

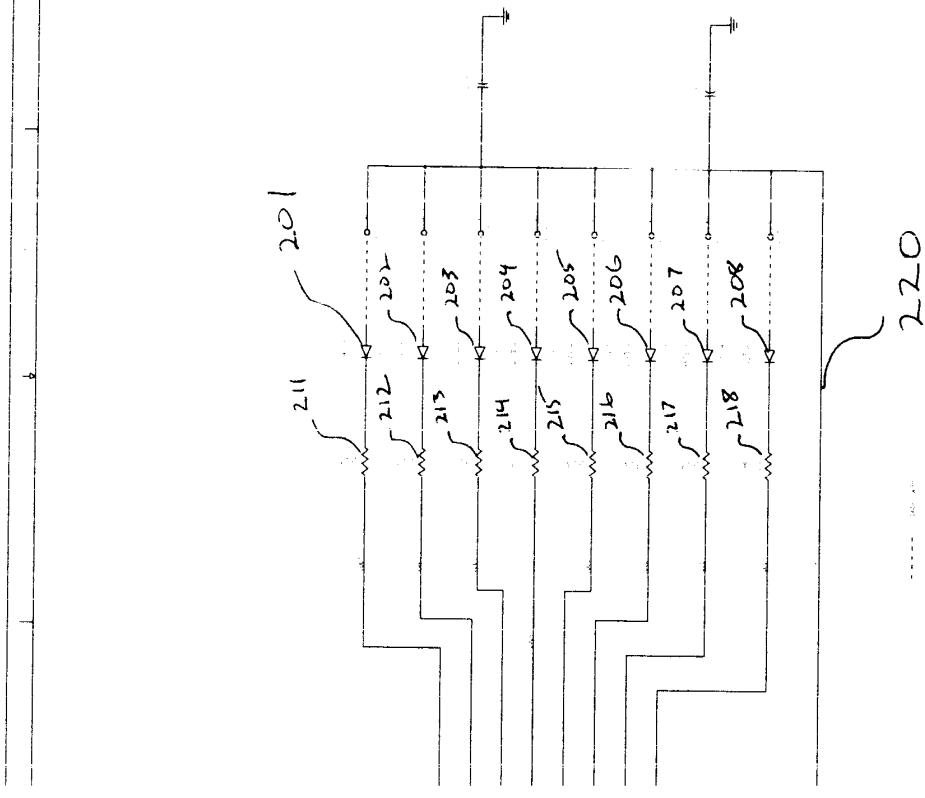


FIG. 18

TRANSMIT	
Transmit Date	2023-01-10
Transmit Time	10:00:00
Transmit Frequency	434.000 MHz
Transmit Power	100 W
Transmit Antenna	Antenna A
Transmit Mode	AM
Transmit Duration	10 minutes
Transmit ID	005573
Transmit Status	Completed